

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-10 (canceled).

11. (New) A semiconductor device comprising a heat-radiative support plate;

 a first semiconductor stack which has first and second semiconductor elements layered and mounted in turn on said support plate; and

 a second semiconductor stack which has third and fourth semiconductor elements layered and mounted in turn on said support plate;

 wherein said first and second semiconductor elements of the first semiconductor stack and said third and fourth semiconductor elements of the second semiconductor stack contribute to form a H-type bridge circuit;

 each of said first to fourth semiconductor elements is a switching element;

 said first and second semiconductor elements are connected to each other;

 said third and fourth semiconductor elements are connected to each other; and

 when one of said first and second semiconductor elements and one of said third and fourth semiconductor elements are

turned on together, the other of said first and second semiconductor elements and the other of said third and fourth semiconductor elements is turned off together, said first and fourth semiconductor elements and said second and third semiconductor elements are alternately switched.

12. (New) The semiconductor device of claim 11, wherein one of said first and second semiconductor elements in the first semiconductor stack and one of third and fourth semiconductor elements in the second semiconductor stack form a switch of high voltage side in the H-type bridge circuit; and

the other of said first and second semiconductor elements in the first semiconductor stack and the other of third and fourth semiconductor elements in the second semiconductor stack form another switch of low voltage side in the H-type bridge circuit.

13. (New) The semiconductor device of claim 11 or 12, wherein a first electric current flows through said first and fourth semiconductor elements and said support plate when said first and fourth semiconductor elements are turned on;

a second electric current flows through said second and third semiconductor elements and said support plate when said second and third semiconductor elements are turned on; and

said first and second electric currents alternately flow through an electric load.

14. (New) The semiconductor device of claim 13, further comprising a control circuit mounted between said first and

second semiconductor stacks on said support plate for controlling the switching operation of said first to fourth semiconductor elements.

15. (New) A semiconductor device comprising a heat-radiative support plate;

 a first semiconductor stack which has first and second semiconductor elements layered and mounted in turn on said support plate;

 a second semiconductor stack which has third and fourth semiconductor elements layered and mounted in turn on said support plate;

 a first electrically conductive and radiating layer mounted between said first and second semiconductor elements;

 a second electrically conductive and radiating layer mounted between said third and fourth semiconductor elements;
and

 a control element attached on said support plate between said first and second semiconductor stacks;

 wherein an upper electrode of said first semiconductor element and a lower electrode of said second semiconductor element are electrically connected to each other through said first radiating layer;

 an upper electrode of said third semiconductor element and a lower electrode of said fourth semiconductor element are electrically connected to each other through said second radiating layer;

 each upper electrode of said second and fourth semiconductor elements and an upper electrode of said control

element are electrically connected to each other through lead wires; and

each lower electrode of said first and third semiconductor elements are electrically connected to each other through said support plate.

16. (New) The semiconductor device of claim 15, wherein each of said first to fourth semiconductor elements is a switching element;

said first and second semiconductor elements of the first semiconductor stack and said third and fourth semiconductor elements of the second semiconductor stack contribute to form a H-type bridge circuit;

said control circuit controls the switching operation of said first to fourth semiconductor elements; and

when one of said first and second semiconductor elements and one of said third and fourth semiconductor elements are turned on together, the other of said first and second semiconductor elements and the other of said third and fourth semiconductor elements is turned off together, said first and fourth semiconductor elements and said second and third semiconductor elements are alternately switched.